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ABSTRACT

Research examining alcohol consumption by using Rotter's Internal-External Locus of Control Scale has reported conflicting results, possibly related to comparisons of clinical groups of alcoholics with nonclinical light drinkers or to an overuse of correlational statistics and a lack of appropriate controls. This study sampled a wide range of ages within a homogeneous population of nonclinical drinkers to assess the relationship between internal-external control, reasons for drinking, and alcohol consumption. Male (N=72) and female (N=105) college students from California State University at Chico completed Rotter's Internal-External Locus of Control Scale, the Questionnaire of Habitual Alcohol Use, and a Reasons For Drinking checklist. The results revealed that younger males drank significantly more and were significantly more external than were older males, suggesting that earlier studies of males in which age was not controlled may have reported spurious correlations. Young female heavy drinkers were more external than their light drinking peers. The Internal-External scale was found to be an ineffective predictor of alcohol consumption. The Reasons For Drinking scale was found to discriminate between young light and heavy drinkers, suggesting that it may be useful as a predictor of alcohol consumption. (Author/NB)

I-E CONTROL, SEX AND AGE DIFFERENCES IN DRINKING

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Abstract

The relationship between internal-external control, reasons for drinking, and alcohol consumption were assessed. 72 male and 105 female graduates and undergraduates were sampled. Young males were found to drink significantly more ($p < .001$), and to be significantly more external ($p < .01$) than older males. These results suggest that earlier studies of males in which age was not controlled may have reported spurious correlations. Young female heavy drinkers were more external than their light drinking peers ($p < .05$). The I-E scale was found to be an ineffective predictor of alcohol consumption. The Reasons For Drinking scale was found to discriminate between young light and heavy drinkers and could be useful as a predictor of alcohol consumption.

I-E CONTROL, SEX AND AGE DIFFERENCES IN DRINKING

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Researchers have attempted to understand the phenomenon of alcohol consumption by using Rotter's (1966) Internal-External Locus of Control Scale. A review of these studies reveals conflicting results. For example, researchers have found heavy drinkers to be more internal(Goss & Morosko, 1970; Gozali & Sloan, 1971; Distefano, Pryer & Garrison, 1972), more external(Naditich, 1975; Jones, Coleman & St. Ledger, 1981; Cox & Baker, 1982), or to show no significant difference from light drinkers(Peterson & Allen, 1983).

Studies supporting the hypothesis that alcoholics are more internal than light drinkers (Goss et al., 1970 & Gozali et al., 1971) have been criticized for methodological weaknesses (Butts et al., 1973) due to unsatisfactory control groups, for example, Rotter's normative sample on the average was twenty years younger than their alcoholic groups. On the other hand, studies supporting the hypothesis that heavy drinkers are more external than light drinkers (Naditch, 1975; Jones et al., 1981 & Apao et al., 1982; Cox et al., 1982) tried to avoid the problems with control groups by using correlational analysis, but still failed to control for age within their experimental groups.

To a large extent, the conflicting results reported may be related to: 1) comparison of clinical groups of alcoholics with non-clinical light drinkers; and 2) an over use of correlational statistics in combination with a lack of appropriate controls,

viz., age.

The purpose of the present study was to sample a wide range of ages within a homogenous population of non-clinical drinkers. By controlling sex and age of the subjects, the present study sought to assess the applicability of the locus of control construct as a predictor of alcohol consumption.

Because reasons for drinking have been reported to significantly differ between light and heavy drinkers (Carmen, 1974; Schilling & Carmen, 1978), a Reasons For Drinking(RFD) scale (Jessor, Carmen & Grossman, 1968) was also used as a predictor of alcohol consumption.

METHOD

72 male and 105 female graduates and undergraduates from California State University, Chico received course credit for their participation in the study. The subjects ranged in age from 18 to 54 years, mean = 23.8, SD = 7.7. Five males and four females were excluded from the analysis because of incomplete test materials.

The questionnaires used were: Rotter's (1966) internal-external locus of control measure. Mehrabian and Russell's (1978), Questionnaire of Habitual Alcohol Use, and Jessor et al.,(1968) check list of Reasons For Drinking (RFD). The RFD score was assessed by the raw number of "personal effects" reasons chosen by the subjects. Personal effects reasons were constructed to imply a need for alcohol to cope with psychological stress and frustration (e.g., "makes the future seem

brighter", "makes me feel less shy.")

To test for possible age differences, males and females were divided into "young" and "older" age groups by dividing at 24 years, the mean age for both genders. These age groups, females (young = 20.1 yr., n = 79; older = 36.3 yr., n = 26), males (young = 20.7yr., n = 54; older = 34yr., n = 18) were tested for differences in mean I-E score, alcohol score and RFD score.

To assess for differences in I-E and RFD scores within gender and age groups and between consumption groups, subjects were divided into "light" (abstainers excluded) and "heavy" drinkers by dividing at the median habitual alcohol consumption score for each group. Those subjects scoring below the median were categorized as "light" drinkers; subjects scoring above were categorized as "heavy" drinkers.

RESULTS

Males and females did not significantly differ in mean scores for I-E control, RFD, or age. The only difference was in alcohol consumption, with males ($\underline{M}$ = 35.0) drinking significantly more than females ($\underline{M}$ = 22.4), $\underline{t}(119) = -2.76$, $\underline{p} < .01$.

As predicted, age of male subjects was significantly related to I-E score, alcohol score and RFD score. Young males ($\underline{M}$ = 10.4) were found to be significantly more external than older males ($\underline{M}$ = 7.1), $\underline{t}(35) = 3.33$, $\underline{p} < .01$. Young males ($\underline{M}$ = 41.7) were also found to drink significantly more than older males ($\underline{M}$ = 15.1), $\underline{t}(61) = 4.28$, $\underline{p} < .001$, and to have more "personal effects" RFD ($\underline{M}$ = 1.6) versus ($\underline{M}$ = 0.7), $\underline{t}(31) = 2.16$, $\underline{p} < .05$.

The effect of age for females was not as pronounced. The

only significant difference between young and older females was in alcohol consumption, with young females (M = 25.9) drinking significantly more than older females (M = 11.9), $t(64) = 3.24$, $p < .01$.

The only difference between young male heavy and light drinkers was in RFD. Young male heavy drinkers (M = 1.1) chose significantly more RFD than young male light drinkers (M = 0.3), $t(44) = -3.24$, $p < .01$. No difference was found between older male heavy and light drinkers, however, due to the small subject pool (n = 18), these findings should be viewed with caution.

Young female heavy drinkers (M = 11) were found to be significantly more external than young female light drinkers (M = 8.7), $t(61) = -2.18$, $p < .05$. Furthermore, young female heavy drinkers (M = 1.7) chose significantly more RFD than young female light drinkers (M = 0.5), $t(61) = -3.92$, $p < .001$. No difference was found between older female heavy and light drinkers. Once again however, the small subject pool (n = 26) warrants caution.

DISCUSSION

Because young males were both more external and higher consumers than older males, it is proposed that the significant correlations (between I-E and alcohol consumption) reported in studies that have not controlled for age (Naditch, 1975; Jones, Coleman & St. Ledger, 1981; Cox & Baker, 1982) may be spurious. Although young female heavy drinkers were found to be more external than young female light drinkers, the reason for this difference is unclear. The present research indicates that the

existence of any relationship between I-E control and alcohol consumption is questionable. Furthermore, use of the I-E scale as a predictor of alcohol consumption appears ineffective for males, and questionable for females. RFD were found to be a valid predictor of alcohol consumption. Reasons such as "makes the future seem brighter," and " makes me feel less shy" were the type preferred by both young male and young female heavy drinkers. Because of these reasons, alcohol consumption for young heavy drinkers appears to perform a functional role. Heavy drinkers, in contrast to light drinkers, appear to use alcohol to change specific subjective states. This information could be useful to the college counselor who is dealing with alcohol abuse issues. Because reasons appear to be one important determinant of drinking behavior, at least in a college population, therapeutic intervention into reasons may provide a viable avenue for treatment.

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